

REMARKS

Claims 1, 3 – 6, 10 – 16, 18, 19, 22, 23, 26, 27, and 29 – 39 have been examined. Claims 1, 3 – 6, and 10 – 15 stand rejected under 35 U.S.C. §101 as directed to nonstatutory subject matter; and Claims 1, 3 – 6, 10 – 16, 18, 19, 22, 23, 26, 27, and 29 – 39 stand rejected under 35 U.S.C. §103(a) as unpatentable over “GIS in Banking: Evaluation of Canadian Banking Mergers,” Can. J. Reg. Sc. (2001) (“MacDonald”) in view of “CACI Information Solutions,” *Marketing Solutions Today* (Summer 2001) and “CACI Limited Home Page” (collectively “CACI”). The rejections are respectfully traversed.

1. §101 Rejections

Applicant respectfully disagrees with the assertion in the Office Action that Claims 1, 3 – 6, and 10 – 15 “are directed ... towards a[] data structure.” These claims are instead directed to a “method,” which is within the statutory classification of a useful “process” recited in §101. The claims recite specific limiting steps for performing the method, and produce a useful, concrete, and tangible result in the form of a populated database. The mere fact that a populated database is a result of performing the steps defining the method does not render the claims as directed to a data structure. For example, no data structure by itself could ever infringe any of the claims — infringement would necessarily need to be established by showing performance of the steps recited in the claims.

The requirement expressed in the Office Action appears reminiscent of a “technological arts” test previously applied by the Office and rejected in a precedential decision of the Board of Patent Appeals and Interferences on September 28, 2005. *Ex Parte Lundgren*, 76 USPQ2d 1385, 1388 (BPAI 2005). Reconsideration of the §101 rejections in light of *Lundgren* is accordingly requested.

2. §103 Rejections

As an initial matter, Applicant notes that the Office Action has not established that MacDonald is prior art to the application. The filing date of the application is December 19, 2001. To establish that MacDonald is prior art, the Office must thus provide evidence showing that MacDonald was accessible to the public prior to December 19, 2001. *See* MPEP 2128.02 (“A journal article or other publication becomes available as prior art on date of it [*sic*] is received by a member of the public”). No such evidence has been provided.

Applicant acknowledges that MacDonald indicates that it was published in the “Autumn/automne 2001” issue of the Canadian Journal of Regional Science. But it is well known that such designations frequently fail to correspond to the actual date that a journal is received by a member of the public, and this nominal designation is accordingly not dispositive. Indeed, in attempting to ascertain the publication date of MacDonald, Applicant’s representative consulted the Internet Archive available at <http://www.archive.org>. A copy of the web page for the Canadian Journal of Regional Science as captured by the Internet Archive on March 2, 2002 (i.e., later than the December 19, 2001 filing date of the application) is attached as Exhibit 1. This web page not only fails to list the Autumn 2001 issue under the “Issues Available,” but lists the Summer 2000, Autumn 2000, and Spring 2001 issues as still “upcoming.” This is suggestive that the Autumn 2001 issue was not available as prior art on December 19, 2001.

If the Office continues to rely on MacDonald as prior art, evidence of its availability to a member of the public as of December 19, 2001 is accordingly requested. MPEP 2128.02. *See also* MPEP 706.02(a) (“The examiner must determine the issue of publication date of the reference so that a proper comparison between the application and reference dates can be made”) and MPEP 901.06(a).IV.G regarding STIC services to determine publication dates.

In the interest of advancing prosecution of the application, the following remarks are also offered regarding the content of MacDonald since it fails to disclose certain limitations of the claims, irrespective of its status as prior art. MacDonald is directed generally to the application of a “spatial interaction model” to predict market share of banks in assessing whether potential mergers of banks in Canada comply with Canadian regulations governing potential

mergers (MacDonald, p. 2, ¶2; p. 1, ¶1). There are certain spatial aspects to the model, which identifies “enumeration areas” and calculates a “percentage of market” in the enumeration area by inversely weighting an “attractiveness” measure with distance from the centroid of the enumeration area to sites of financial institutions (*id.*, p. 12, ¶2 – p. 15, ¶1). But the use of spatial information in this way is different from what is claimed.

Specifically, the “distance measure” recited in the claims as a basis for quantification of a level of competition is “between the business and competitor representatives.” No such distance measure is used in MacDonald. In part, this is because MacDonald is unconcerned with the competition to a particular business by competitors, being concerned instead with quantifying the overall market penetration that would result from a merger of financial institutions (*id.*, p. 13, ¶2). The distance measures d_{ij} that are used in MacDonald are between the centroid of an enumeration area and sites of financial institutions — an endpoint of each distance measure is not related at all to a location of any business or competitor, being instead merely the (rather abstract) position of a centroid.

In addition, the spatial interaction model described in MacDonald fails to “calculat[e] a probability that quantifies a level of competition to the business ... provided by the one or more competitors.” The Office Action takes the position that the “competitors” to a “business” are branches of a potential merger partner to a bank (Office Action, p. 4) and that the “probability that quantifies [the] level of competition” is the percentage of market enumeration p_{ij} . But in a potential merger, what is of concern is the total market penetration of the possible combination of financial institutions, not the level of competition between them. It is this total market penetration that is quantified by the percentage of market enumeration described in MacDonald, not any measure of competition between the potential merger partners.

It is also respectfully noted that MacDonald fails to teach or suggest the claim limitation requiring “correlating the quantified level of competition with demographic data corresponding to the location information in the at least one populated database.” The Office Action cites p. 9, ¶2 of MacDonald for this limitation:

The above discussion should be given consideration when a bank is evaluating issues of market dominance for itself, but in practical terms it is advisable that the institution attempt to match the process currently being enforced -- a virtually impossible task without the aid of GIS. Given what is known about how the Competition Bureau defines markets, it is possible to use GIS to actually duplicate this same general process. Thus, through a combination of popular GIS and database software, an extremely tedious month-long process involving inspection of branch locations and municipality locations can be converted into one computer programs executed within a couple of minutes. The process is used for rural markets alone (given that CMAs and CAs are used to defined urban markets), and is described below, this time without the flowchart representation.

Nothing in this description is related to "correlating the quantified level of competition with demographic data corresponding to the location information in the at least one populated database." Instead, this description merely provides a broad overview of how MacDonald proposes to apply a geographic information system in attempting to replicate how a government evaluates the market impact of a merger. Such a process is unrelated to a correlation of competition level with demographic data, but instead seeks to predict total market share. Indeed, no mention is even made in the cited portion of MacDonald to any data that could reasonably be construed as "demographic data."


For these reasons, each of the independent claims is believed to be patentable even should MacDonald be established as prior art. The various dependent claims are believed to be patentable by virtue of their dependence from patentable claims.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,


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"It is hoped that the Journal will fill an obvious void in the Canadian social science literature and contribute in some manner to the development of regional science in the country."

More generally the objectives of the Journal are to:

- provide an outlet for interdisciplinary research on regional and urban issues;
- encourage academics to undertake research on regional issues;
- promote the exchange of ideas across different academic disciplines.

How the Objectives of the Journal Differ from Other Journals

The *Canadian Journal of Regional Science* is unique in the Canadian context since it provides a critical research outlet for interdisciplinary work on regional and urban issues in the nation. Its authors come from the disciplines of economics, geography, sociology and political science.

It is important that the *Canadian Journal of Regional Science* continue as an outlet for regional research in the country. There can be little doubt that with the geographic size of the nation, the different endowments across the provinces, the different cultural groups and the persistent regional economic disparities, that the field of regional science as an interdisciplinary subject can provide useful insight into the regional problems in Canada.

Origin and Evolution of the Journal

The *Canadian Journal of Regional Science* (CJRS) began publication in 1978 at the Regional and Urban Studies Centre, Institute of Public Affairs, Dalhousie University under the co-editorship of Andrew S. Harvey and William J. Coffey.

The journal remained in Halifax until 1988 when the editorship (and production) moved to INRS-Urbanisation at the Université du Québec à Montréal with Professor Jacques Ledent as editor.

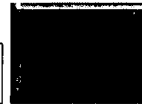
Beginning with Volume 15 for the year 1992, the journal was co-edited by Jacques Ledent and William Milne. This was the beginning of the transition in editorship of the journal from Ledent to Milne. Beginning with Volume 16 (for the year 1993), production of the journal moved to the Department of Economics, University of New Brunswick with William J. Milne serving as editor.

The *Canadian Journal of Regional Science* / *Revue canadienne des sciences régionales* is the journal of the Canadian Regional Science Association / Association canadienne des sciences régionales

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